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A COMPARISON OF RATE OF DEGREE ACQUISITION
TO PARENTAL EDUCATION

BY



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A THESIS

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The undersigned certify that they have read and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "A Comparison of Rate of Degree Acquisition to Parental Education" submitted by Louis P. Voghell in partial fulfilment of the requirements for the degree of Master of Education.

ABSTRACT

The purpose of this study was to identify the relationship between the rates at which a group of respondents had acquired a degree at the successive levels of bachelor's, master's, and doctoral, and the formal education levels of their parents.

In addition, an a posteriori purpose was established which investigated the relationship between the numbers of successive degrees, through the degree levels mentioned above, acquired by individual respondents, and the educational levels of their parents.

The sample consisted of a group of educational administrators selected from the respondents to the Thiemann Career Pattern questionnaire, who had moved from employment at some level of education between kindergarten and grade twelve to employment either in some area of post-secondary education or in a professional or government organization.

The methodology consisted of using chi-square analysis, with significance taken at the .05 level, to determine significant differences either in rate of degree acquisition, or in the numbers of degrees acquired by respondents, and each of the component aspects of the education of their parents, father education, mother education, or combined parental education.

No significant relationships were discovered between any of the component elements of parental education and either the rate of degree acquisition of the respondents, or the numbers of degrees acquired by the respondents.

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Chapter 1

THE PROBLEM

Statement of the Problem

The problem of this study was to determine whether the rate of degree acquisition in a selected population of educational administrators varied with parental education.

Statement of Sub-Problems

In order to achieve a thorough analysis of the problem, areas to be investigated included the following sub-problems:

1. Is there a relationship between the rate of degree acquisition and the level of education achieved by a subject's father?
2. Is there a relationship between the rate of degree acquisition and the level of education achieved by a subject's mother?
3. Since motivational effects from parental education may come from combinations of parental levels of education, is there a relationship between rate of degree acquisition and combinations of parental level of education?

Importance of the Study

This study utilized data from the Thiemann Career Pattern Study begun at the University of Alberta in 1968, which was designed to provide extension of knowledge about administrative personnel in Alberta. As outlined in a letter by Thiemann, included in the Appendix, the purpose of his questionnaire included collection and provision of baseline

data on Alberta administrative personnel for researchers and students. Although primarily intended for students of career patterns, it also would provide information needed to test hypotheses dealing with complex organizations, succession, and careers or, as in the present study, rate of degree acquisition of selected administrative personnel.

Descriptive studies utilizing the same data bank were done by Murphy (1969), on career patterns of principals within the Edmonton Separate School system, and by Weleschuk (1969), on career patterns of Alberta school superintendents.

In support of this total purpose, Dr. T. C. Byrne, (1968) Deputy Minister of Education for Alberta, wrote (see Appendix) at the time of initiation of the Thiemann study,

Anything that adds to our understanding of recruitment and selection of top executives in the field of Education should prove useful to all organizations in preparing and employing administrators.

The idea of studying all the factors bearing on the development and nature of specialized personnel is not a new one, as indicated in a statement made by Bendix and Lipset, (1963, p. 8)

The work of Nicollo Machiavelli is relevant in the present context because he was the first social scientist in the modern sense. He set himself a major goal and then investigated the factors which would promote or hinder its realization. . . . It was a question of a strong man who could lead the people out of chaos.

Whether or not it is agreed that Machiavelli was the first social scientist in the modern sense, it seems plausible

to suggest that a purpose of training leaders and administrators is to provide "strong men who can lead the people out of chaos," and that the purpose of giving or taking training in administration is to try to develop the skills and knowledge possessed by such persons. It seems reasonable, therefore, that any and all investigations of factors which have a bearing on the development and training of administrators are of use not only to the society which supports schools of administration, and to the schools themselves, but also to the trainees.

Many factors undoubtedly affect an administrator's development, both in style and tempo. Several, such as native intelligence, economic resources and occupation of parents seem very apparent as sources of influence. However, certain other factors may have greater influence than is generally suspected. One of these may be parental level of education. The motivational effect of parental level or levels of education may be a significant factor in an individual's conscious steps in career preparation.

Also of importance is the possibility that the findings of this study may help to suggest useful insights into problems of educational motivation for certain special groups, such as our Indian population.

For these reasons, then, it is hoped that this study may prove a useful addition to knowledge in its own right, may provide an important "tile for the mosaic" for the

Thiemann study, and may prove an important stimulus to further research in this area in administrative science. There is currently need for more administrative personnel in Alberta, and the need for quality administrators and educational leaders has seldom been more acute than in the current period of student activism and unrest.

Approach to the Study

Two basic approaches are possible in a study. One is to examine all possible factors which may have a bearing on the phenomenon studies; the other is to take one factor in isolation and study it intensively. This study takes the latter course with respect to the rate of degree acquisition of selected individuals as related to the level of education attained by their parents.

ASSUMPTIONS, DELIMITATIONS AND LIMITATIONS

Assumptions

For the purpose of this study, it was assumed that:

1. The information given by the respondents was accurate.
2. Respondents had a uniform interpretation of parental education categories used in the questionnaire.

Delimitations

1. No consideration was made of the time taken in actual work on a given degree. Only the time lapse

between year zero (high school graduation) and the awarding of each degree was considered.

2. No differentiation was made between degrees at each level, regardless of the discipline in which they were achieved. That is, all baccalaureates were classed uniformly, as were all Master's degrees, all Doctorates. Baccalaureates were Step one, a Master's Step two, and all Doctorates Step three.

3. No consideration was given to extra degrees completed at any level, Baccalaureate, Master, or Doctorate. Only the initial degree for each level was treated.

4. This study did not deal with all possible factors affecting rate of degree acquisition. It was limited to examination of the relationship between rate of degree acquisition and one factor, parental education.

Limitations

1. Information which was unavailable to, forgotten by, or omitted by the respondent could not be obtained.

2. The meanings intended by certain questionnaire items may have been misinterpreted by the respondents. The straightforward nature of the information collected in the Thiemann Study makes this risk minimal.

3. The fact that the questionnaire was not designed specifically for this study limited to a degree the method of analysis which could be used.

DEFINITION OF TERMS USED IN THE STUDY

Parental education. The level of education achieved by respondents' parents, based upon highest grade completed.

Father education. The level of education achieved by the respondents' fathers, based upon the highest grade completed.

Mother education. The level of education achieved by respondents' mothers, based upon highest grade completed.

Combined education. A categorization of the educational levels of both parents taken together. The standard categories used were Low, Middle, and High.

Year zero. Respondent's year of High School graduation.

Step one. Acquisition of a Bachelor's degree by the respondent.

Step two. Acquisition of a Master's degree by the respondent.

Step three. Acquisition of a Doctoral degree by the respondent.

Step one time; Step two time; Step three time. The actual time periods, calculated from year Zero, required by respondents for completion of each of Steps one, two, and three.

Rate of degree acquisition. The comparative time, in relation to the times of other respondents, taken to

complete a given degree.

Step one, Step two, Step three rates. The relative times required for each of the above steps, categorized into Fast, Medium, or Slow rates of degree acquisition for each step.

HYPOTHESES

The basic hypothesis is that there is a relationship between the rate of degree acquisition and parental education. For the purposes of analysis, the following null hypotheses have been advanced.

Null Hypothesis One

Ho: There is no relationship between rate of degree acquisition and father education.

Null Hypothesis Two

Ho: There is no relationship between rate of degree acquisition and mother education.

Null Hypothesis Three

Ho: There is no relationship between rate of degree acquisition and combined parents' education.

Null Hypothesis Four

Ho: There is no relationship between rate of degree acquisition and similar levels of parental education (both parents) as opposed to dissimilar levels of parental education (both parents).

Chapter 2

REVIEW OF THE LITERATURE

INTRODUCTION

This chapter reviews the literature in four basic regions, and indicates the relationship of the research hypothesis to this literature.

The four regions are: (1) parental influence generally, (2) parental influence on aspirations and occupational choice, (3) parental education level and its effects on grade achievement, and (4) parental education level and its effects on aspirations and occupational choice.

PARENTAL INFLUENCE GENERALLY

Parents as Part of Experience

Beyond any hereditary influences on behavior, parent-child relationships usually form an important part of early experience. Therefore, findings and conclusions regarding the relationship of early experience to behavior would seem applicable to the examination of the possible effect of a parental characteristic (level of education) on adult behavior (rate of degree acquisition).

Early Experience and Behavior

That there is a relationship between early experience and behavior seems beyond question. This view seems well

expressed by Hess (1959, p. 130) who says that early experiences of animals (including man) have a profound effect on their adult behavior. Later, in the same context, he states that the task of the investigator is not so much to find out whether early experience determines adult behavior as to discover how it determines adult behavior.

Hess (1959, p. 131) continues that three statements are usually made about the effects of early experience,

. . . early habits are very persistent and may prevent the formation of new ones. . . . early perceptions deeply affect all future learning. . . . early social contacts determine the character of adult social behavior.

Parental Influence on Attitudes and Personality

Certain sources in the literature, such as the following, seem to support the idea of parental influence on early attitudes and resultant behavior.

Ausubel's (1966, p. 608) statement in connection with the development of conscience may be pertinent:

We might postulate that the first step in the child's development of conscience involves his assimilation of parental values and standards. Having no other frame of reference for judgements of good or bad, the prestige suggestions of parents easily hold sway.

In subsequent discussion, referring to the development of a sense of obligation, he states,

The central hypothesis . . . is that this development typically takes place in children who are intrinsically valued by parents and who thereby acquire a derived or vicarious status in consequence of this acceptance.

Another important attitude or personality facet which may affect lifelong behavior, particularly learning behavior and achievement motivation, is curiosity. Haber (1965, pp. 1-4) explaining, and commenting, on the shift from "drive" to "incentive" variables in theories of motivation in the last few years, states,

One of the more important factors that has hastened the decline of the drive interpretation of motivated behavior has been the increase of interest in studying exploration and curiosity and general activation or arousal processes. . . . little attention was paid to the fact that human beings, like lower animals, spend large amounts of time engaged in the seemingly frivolous activity of being curious.

The pertinence here, of Haber's discussion is that it may raise questions regarding the role of parents in the transmission, stimulation, fostering, or curbing of curiosity, for, as Haber continues: "Attempts to include this kind of behavior in a drive framework by creating a curiosity drive were neither particularly logical nor empirically successful."

Of possible related interest also, is Seaman's (1960) study of academic under-achievement among education students at the University of Alberta in which he relates over-achievers and under-achievers to manifest personality needs or characteristics, chief of which, in achievers, is "a need for achievement and, to some extent, needs for Order and Endurance." The possibility that these personality needs could be inherited, or acquired from parents through early experience, seems to make this study worth examination.

Also possibly related to need-influenced behavior is a paradoxical finding from Sherif and Sherif (1965), in a study reporting positively correlated effects of high and low status schools on student aspirations, that a minority of youth of low rank who did aspire highly were far more ambitious than those from high-ranking schools. Again, is ambition acquired from parents?

A possible indication of how such attitude characteristics could be transmitted is suggested by McClelland (1966, p. 644) who alludes to his own previous research on the achievement motive and says,

. . . the ones with a lot of achievement imagery tend to learn faster, to perform better, to set different levels of aspiration, to have a better memory for incompleted tasks, to perceive the world in different terms, etc. Perhaps even more interesting is how they got that way. . . . we were led back to the mother-son relationship and found that independence training seems to be associated with achievement motivation. That is, mothers who encouraged their sons to develop independently . . . seemed to have sons with higher achievement motives.

He then continues that in the attempt to find why some mothers favor independence training more than others, the question of values was raised, and values raised the question of religious ideology. Resultant findings were that attitudes towards independence training, in the sense of encouragement to develop independently, were not randomly distributed through various population sub-groups.

How Parental Influence May be Transmitted

The statement by Hess (supra. p. 9) that the task of the researcher is to learn how parental influence is transmitted, is pertinent. The concept that all behavior is either acquired through association learning, or instinctive, in the sense of being inherited, is being challenged. Haber (1965) in his Current Research on Motivation states, in the introduction to a chapter including several articles on instinctive behavior, "A chapter on instinctive behavior is not usually found in a course on motivation, though it has great relevance to research on motivation."

He defines an instinct as,

. . . a pattern of behavior, usually complex in structure (to distinguish it from a reflex) which is found universally among the members of a species, occurs without need for prior learning or experiences, is relatively invariant in form, and is reliably elicited or released by a particular and usually very simple stimulus.

He then includes, in the chapter so introduced, a paper by Hess reporting imprint studies which strongly suggest that at least some aspects of behavior accepted as inherited are in fact, a form, or specialized type, of learning acquired from social contacts at a very specific time, at a very young age and, most lastingly, before the onset of fear.

Hess (1959) explained this phenomenon of imprinting with the statement, "early social contacts determine adult

behavior."

In this context, Dr. Strong (1959) in his Sociology lectures, often said, in reference to racial intolerance or prejudice, that prejudice is not transmitted by an intellectual or reasoning process, and cannot be removed by an intellectual process.

Beach (1955, p. 410) commenting on acceptance of the idea that all behavior is acquired or inherited, states

. . . No such classification can ever be satisfactory. It rests upon exclusively negative definitions of one side of the dichotomy. . . . the concept of instinct will disappear, to be replaced by scientifically valid and useful explanations.

Most of the literature surveyed in this section dealt with the relationship between early experience and behavior, and was reviewed on the assumption that parents, and parental characteristics formed part of early experience. Some references dealt more directly with possible effects of parental influence, primarily on attitudes and personality. Other references dealt with the processes by which behavior may be acquired. In this context, regarding "early experience" no indications were found as to the precise length of what could be termed early experience. Imprint studies suggest a very restricted time span. However, since man develops much more slowly than animals, such as ducks, which are near the other end of the "early-awareness continuum," it seems logical for at least the suspicion that imprint-type of behavioral influence may exist with humans.

The three statements by Hess (supra. p. 9) about the effects of early experience are an almost precise statement of the curiosity or question areas concerning degree acquisition, which led to this study.

PARENTAL INFLUENCE ON CAREER ASPIRATIONS AND OCCUPATIONAL CHOICE

Rehberg (1966, p. 1) reports, in the introduction to his study on determinants of adolescent educational expectations, that from the more than 200 studies of determinants of the educational career orientations of high school adolescents has emerged strong empirical support for four generalizations.

He reports that the proportion of adolescents expressing an expectation to enroll in a four year college or university varies:

1. Positively with social status.
2. Positively with educational attainment of the parent.
3. Positively with the intensity of parental pressure.
4. Negatively with size of family.

It may be noted that two out of the four determinants of career orientations deal with direct parental influence, and that the other two are possibly products of parental characteristics or actions. In addition, one of the four determinants deals with parental educational achievement.

Parental Pressure

Related to item three of the above generalizations (intensity of parental pressure), Kahl (1962), defining parental pressure as a clear and overt attempt by either or both parents to influence their son to go to college, concluded that,

. . . if the parents were pushing towards college, in eight out of nine cases, the boy responded appropriately, but if the parents were indifferent about college, in eleven out of fifteen cases, the boy was uninterested.

Similarly Bordua (1960) on the basis of a study with ninth to twelfth graders, reported that parental stress on career achievement is positively and linearly related to college plans.

Simpson (1962) using parental occupational advice to enter high ranking professional or executive positions as an indicator of parental pressure, noted that parental pressure,

. . . is strongly associated with mobility aspirations among working-class boys, and also with ambition among middle class boys. Indeed, parental advice is a much better predictor of high ambition than is the boy's social class.

Socio-Economic Status

An indirect parental influence on career aspirations may come from socio-economic status. In this context, Sewell and Shah (1968, p. 571) found that socio-economic status, intelligence, and family encouragement have a

significant relationship with each other in contributing to educational aspirations while having a substantial independent relationship to college plans.

Since there seems to be evidence that socio-economic level is related to educational level, this aspect of parental influence on careers will be considered more fully in a following section of this chapter.

Other Aspects of Parental Influence on Careers

Coleman (1961) felt that the level of aspiration was not directly linked to socio-economic status, but that it has some relationship to family pressure and to differing cultural expectations for the sexes. The aspect of differing cultural expectations for the sexes leads to consideration of the Werts (1967) idea of transmittal of "interest" patterns from father to son, which he offers as a possible explanation for the findings of his study. These findings were that three broad types of occupations seem to be passed on from father to son, namely, scientific, teaching-guidance, and medical.

Another study which seems closely related is that of Coates and Pellegrin (1957) regarding bank managers' sons. This study reports that a very significantly small number of bank managers' sons enter education as a profession, whereas a normal number of daughters enter teaching. Teaching is apparently considered just not good enough for the managers'

sons, or at least very inferior to other careers towards which their interests may have been directed. This study seems to provide strong evidence for both points of view, that parental influence can affect choice of careers in offspring, and that career expectations or interests by parents may differ for offspring of different sexes and be reflected in the child's subsequent choice.

Finally, in the consideration of the effects of parental influence, and factors that might be considered as depressant, or "negative" effects of influence, two studies are noteworthy: Dunkleberger (1965) found, from a study of male household heads in low income areas of the rural south,

. . . these men had high latent aspirations but relatively low expectations . . . were very realistic about the world in which they lived . . . tended to center their hopes concerning upward mobility on their children. . . . Nearly all of them aspired to high status occupations for their sons.

Presumably these fathers would tend to urge their sons in the direction of these high status occupations. The actual effects of their influence, however, might differ, as suggested by consideration of Slocum's findings.

Slocum (1966, p. 215) reports a 1953 Washington study, in which three out of every four high school seniors acknowledged that some person had influenced their occupational planning in a helpful way, and one out of three reported negative influences. Parents headed the list of

those exercising helpful influence.

Slocum then suggests,

. . . The hazard in this is the limited experience of the adult. Biased advice, based on inadequate information may be worse than none and those with the most limited horizons may be the most positive.

Summary

In summary, the discussion of general parental influence on career aspirations and occupational choice included studies relating to what might be termed the generalization of influences on career aspiration, and attempted to identify which of these are directly or indirectly subjected to parental influence.

One of the strong elements of influence seemed to be parental pressure towards high aspirations and choices of occupations.

Socio-economic level of families seemed to have a considerable influence on career aspirations and occupational choice, socio-economic status is a product of parental characteristics. The aspect of differing expectations for the sexes was discussed as an area of parental influence. Other studies indicated that parental advice is a strong factor, but that the quality of parental advice may be affected by factors of limited parental information.

PARENTAL INFLUENCE ON GRADE ACHIEVEMENT

The general attitude towards education in Canada,

as well as in the United States, is well expressed by Slocum (1966, p. 138):

Most Americans are aware, at least in a general way, that there is a close connection between educational and occupational achievements. . . . Whether it is justified or not, there is widespread confidence in America that education will provide the solution for all kinds of problems including those associated with occupations.

It would seem logical to assume that such an attitude would result in exhortation by parents for educational attainment, and that such exhortation would have a positive effect on grade achievement, as it seems to have on career aspirations and choices. These effects could, however, be limited or distorted by factors of parental experience as discussed previously in regard to career achievement. Support for this assumption could be taken from Slocum (1966, p. 157). Discussing the upgrading of the occupational skills of the uneducated, he states that the problem is not merely one of motivation, but that there are in many cases, deep-seated sociological problems attributable to continual exposure to, and reinforcement from, the values held by their families and friends.

This thought is also well expressed by Turner (1964) in relation to the handicap faced by boys of high ambition in low socio-economic status neighborhoods, when he states,

The peculiarity of social organization among boys in the lower neighborhoods may be stated comprehensively as a pattern of future-orientation without anticipatory socialization. Ambition and academic success are valued, but the distinctive values appropriate to the

destination of the highly ambitious are not learned along the way.

In spite of such possible, or even probable limitations, belief in the value of education may be transmitted by parents to children. Questions still unanswered relate to the nature of the attitudes or capabilities transmitted by parents to their children. For example: Is an attitude of confidence acquired from parents? Is this a reasoning process? Would the child be more likely to acquire confidence in his ability to achieve highly, if he perceived that his parents had been able to do so?

This last question leads to consideration of the effects of parental level of education on educational achievement of children. A study by Card (1966, p. 101) indicates a relationship between parental education and Grade Nine achievement. In this study, a high correlation between mother education and achievement of the child, as well as a lesser correlation between father education and achievement of the child was found. In the case of both correlations, however, the motivational effect was significantly higher only where parental education was at the grade ten level or higher.

A similar finding was made by McGillivray (1963, p. 102) in comparing home backgrounds of high-achieving and low-achieving gifted children. He found no significant differences in the general educational levels of the parents.

He found, however, that significantly more of the mothers and fathers of high achievers had completed grade thirteen, but that no differences could be found for any of the other parental educational levels.

Further support for the possibility of a relationship between parental education and achievement may come from the Werts (1967) study. Werts found that where fathers have a scientific position, their sons win more high school science contests; where fathers are in a guidance-education occupation, sons hold more leadership positions.

This could be the result, logically, of greater knowledge or skills transmitted. It could, however, also be a relationship achieved through greater confidence, progressively acquired, and the resultant achievement the result of seeing that parents, (fathers in this case) had achieved success in these fields.

In this context, some of the studies dealing with achievement motivation and its relation to success may be pertinent. Sears (1940) found that level of aspiration increases as a function of success in previous tasks. Robinson (1961) found that British school-children who had been selected for grammar school at 11+ had a higher motive to achieve than children of the same I.Q. who were not selected. He took these findings as confirmation of his hypothesis that success would increase achievement motivation.

The findings regarding the positive effects of early

independence training on achievement motivation discussed by McLelland (1966) and previously referred to here in section two (supra. p. 11) were examined by other researchers. Child, Storm, and Veroff (1958) found no such relation with self-reliance training in their study of 52 societies, nor in re-analysis of the McLelland and Friedman data. However, Rosen and d'Andrade (1959) point out that encouragement of independence in general must be distinguished from encouragement of independent achievement in particular.

These and similar studies seem important in the context of this study because they may cast light on the complex of influences from parents which may counteract or reinforce effects of other life encounters. Schools, for example, by nature of the fact that all but the top few talented individuals which the schools (Slocum, 1966) attempt to identify at an early age, may tend to be relegated to a relative failure role.

Summary

In summary then, the general belief in the value of education should result in higher grade achievement, as it seems to result in higher career aspiration and achievement.

Regarding effects of parental education on grade achievement, studies referred to herein indicate that there is probably a relationship between parental education and

grade achievement, but only where parental education is relatively high, or in areas of parent specialization such as science.

Other studies cited deal with achievement motivation as related to successful experiences. They are mentioned here with the suggestion or suspicion that parental education may, through the building of confidence or the provision of knowledge and insights, contribute to a child's successes and resultant confidence.

PARENTAL LEVEL OF EDUCATION AND ASPIRATIONS OR OCCUPATIONAL CHOICE

Education and Occupation

If Slocum's statement (supra. p. 19) that there is a close connection between education and occupational achievement is accepted, then the studies in the area of intergenerational occupational mobility are pertinent to this study.

Intergenerational Occupational Mobility

Lipset and Bendix (1959, p. 197) have expressed grave doubts about the ability of an individual to rise much above the occupational status of his father, they state,

If an individual comes from the working class, he will typically receive little education or vocational advice; while he attends school, his job plans for the future will be vague and when he leaves school, he is likely to take the first available job he can find. The poverty, lack of planning, and

failure to explore fully the job opportunities that characterize the working class family are handed down from generation to generation. The same accumulation of factors . . . works to the advantage of the child coming from a well-to-do family.

Lipset and Bendix also emphasize the importance of family background as a factor that greatly influences subsequent occupational achievement, that it produces a complex of interrelated factors, depressive in the case of young people from working class families, and supportive in the case of those from families at a high occupational level.

Burton (1953, pp. 257-267) claimed that lower class children are neither believers nor participants in the cultural heritage of middle class society, and thus unlikely to aspire to a high level of education.

Regarding intergeneration mobility of business leaders, Warner and Abegglen (1955) said,

Whatever our national hopes, the business leaders of America are a select group, drawn for the most part from upper ranks. Only to a limited extent may it be said that every man's chances are as good as the next man's, for birth in the higher occupational levels improves these life chances considerably.

Davie, (1953, p. 184), in a study of high socio-economic factors found that three factors associated with high socio-economic status made higher educational aspiration a natural thing for children of these circumstances, one of these was "a configuration of beliefs, values, and attitudes pertaining to the purpose and value of education."

Bordua (1960, p. 265) found that socio-economic status is related to college plans at all school year levels.

Parental Education in Isolation

Regarding financial success, or occupational success, as related more independently to parental education, a pilot study by Hunt (1964) on the relationship between parental education and adult offspring's income showed a significant relationship only among those graduates who went into business. Among those who went into business, the relationship was particularly significant if the mother, but not the father attended college. The explanation offered was that the "mother only" variable is a proxy for motivation, and that this could be the cause if motivation from the home comes largely from the mother.

A woman who marries beneath her educational level becomes particularly anxious to motivate her children to the status and achievement which she has denied herself (since status tends to come from the father's education and occupation).

In studying the determinants of educational level for adult offspring in rural Tennessee, Hughes (1959) found in measuring variables that educational attainment of the mother was more significant than that of the father.

The previously cited study by Werts (1967) regarding transfer of certain occupational patterns from father

to son may be pertinent here also. The occupational patterns listed as transferred are all fields which require a high level of education.

Empey (1956) presented evidence demonstrating that occupational aspirations should be evaluated from a relative rather than an absolute point of view. These findings were that sons of low-occupation status fathers had aspirations for upward occupational mobility, but their aspirations tended to be relatively modest. Aspirations were one or perhaps two status levels above those of their father's occupations.

Keeping in mind the relationship between occupation and education, this finding suggests that father's lack of education and concurrent low occupational status would act as limiting factors on career aspiration and achievement.

Summary

Accepting that there is a close relationship between educational level and occupational achievement, the many studies on intergeneration occupational mobility suggest that parental education directly, or through its effect on occupational achievement, has a positive correlation to the level of development of these same related achievements in children.

Other studies, more precisely measuring the relationship between parental education and career aspirations and occupational choice, suggest that there are influences related

to each of mother's and father's level of education.

CHAPTER SUMMARY

The section on parental influence on adult behavior provides evidence that parents affect adult behavior, either directly, or indirectly through effects on early experience and behavior. Any inherent characteristics which might affect behavior would, of course, be an aspect of parental influence. Much more needs to be known about the ways in which behavior is acquired by the child and adult, or concomitantly transferred to offspring from adults. Imprint studies suggest the possibility that a whole new area of knowledge about human behavior may be awaiting discovery.

Section two focused attention on the more specific area of parental influence on behavior, examining possible paternal influence on career aspirations and occupational choice. Evidence is strong that certain parental characteristics or behaviors relating to social status, educational attainment and parental pressure and advice towards educational attainment of children have great bearing on eventual career selection and achievement. This section focused attention primarily on parental stress and its generally positive correlation with career selection and achievement. It also pointed out, however, that the level of parental career information or actual knowledge may affect the degree to which parental urging results in the

child actually reaching the level of achievement desired by parents.

The third section on the relationship between parental educational level and grade or school achievement suggested, first that general belief in the benefits of education may lead to high grade achievement by a similar process to that which tends to lead to high career aspiration and achievement. Second, studies measuring more specifically the relationship between parental education and grade achievement suggest that a relationship exists primarily where the level of parental education is relatively high.

Regarding the idea of the effects of parental educational level on career aspirations and occupational choice, acceptance of the idea that there is a strong relationship between educational and occupational achievement suggests that being born and raised in a family with a relatively low level of education and occupational status usually has a depressant effect on career achievement, with the converse also being true. Also, there is the suggestion that where there is a disparity in the educational levels of the two parents, with the mother's being higher, strong motivation may result. In conclusion, although it does not determine precisely into which area of adult behavior rate of degree acquisition belongs, nor does it make possible determination of the process by which parental level of education may affect rate of degree acquisition, the

literature surveyed seems to provide ample evidence for a strong suspicion that the level of parental education and the rate of degree acquisition may be related.

Chapter 3

RESEARCH DESIGN AND DESCRIPTION OF THE DATA

The purpose of this chapter is to explain the collection of the data, to describe the sample, to describe and categorize the basic variables used in the study, and to outline the methodology used in the examination of the relationship between parental education and rate of degree acquisition.

COLLECTION OF THE DATA

This study used existing data from a questionnaire developed and administered by Thiemann in 1968 (supra. p. 1).

After consultation with Thiemann and obtaining of permission to use data from his questionnaire responses, a sample was chosen, and items providing data pertinent to this study were selected. The information to be collected from the questionnaire concerned primarily the educational level of respondents' parents and the respondents' own university training patterns--the high school graduation year of respondents, and data regarding degrees held, and their years of completion. This information, (contained in items eight, eleven, and twelve of the questionnaire), provided all necessary data for the two basic variables--parental education, and rate of degree acquisition--used in the analysis.

Two additional items, (two and three), identifying respondents' institutions of employment, and respondents' sex, respectively, were coded but used only in description of the sample. Table 21 presenting the items used, and the appropriate sections of the questionnaire used in the study are included in the Appendix.

Responses to the pertinent questionnaire items were coded on IBM cards for analysis using the IBM 360/67 computer. All coding was done by the researcher.

THE SAMPLE SELECTED

The sample selected from the total questionnaire respondents was a population of 108 educators that met the following criteria: (1) experience in Alberta education in some area of kindergarten to grade twelve; (2) experience as educational administrators; (3) employment, in 1968, in some post-secondary institution, or in a professional or government organization. These were the universities, junior colleges, agricultural colleges and vocational schools, the Department of Education, institutes of technology, provincial teachers' or trustees' associations, Newstart, and elected government posts, as shown in Table 1.

Description of the Net Sample

Of the 108 members of the selected population, five did not record parental education; they were therefore

Table 1

Distribution of the Net Sample by Institution
of Employment

Universities	40
Department of Education	20
A.T.A. and A.S.T.A.	6
N.A.I.T. and S.A.I.T.	6
Junior Colleges	16
Agricultural and Vocational Schools	9
Newstart	3
Elected Government Office	<u>1</u>
Total	101

deleted from the sample. Two more were excluded because they did not hold degrees; one additional person did not specify the time of acquisition of his first two degrees, and was therefore excluded from parts of the analysis relating to those degrees. As a result, the net sample consisted of 101 members.

Distribution of the Sample by Institutions of Employment

Distribution by institutions of employment was not a factor in the analysis, since the sample for this purpose was considered homogeneous in the aspect that all members held positions in areas other than elementary or secondary education. This distribution, therefore, is included for reader interest only (Table 1).

Age of Sample Members

The ages of sample members were not considered in the analysis since the questionnaire did not provide individual ages. For reader interest only, a distribution of the sample by approximate ages is included in Table 19 in the Appendix, in conjunction with a distribution of the sample by year zero (see Definitions). Approximate ages were calculated by using year zero and assuming age eighteen as the age of high school graduation..

Sex of Sample Members

All but two members of the sample were male. Because the number of females was so small, no categorizations or analyses were made by sex.

Distribution of the Sample by Highest Degree Held

For descriptive purposes, sample members were classified according to the highest degree held by them; seventeen held a bachelor's degree, thirty-six held a master's degree, and forty-eight held a doctoral degree (Table 2).

Other Data About the Sample

The data on the two basic variables used in the analysis are described and categorized in two sub-divisions of description of the data in the sections which follow.

Table 2

Distribution of the Sample by Highest Degree Held
(N=101)

	Highest Degree Held			Total
	Bachelor's	Master's	Doctoral	
Frequency	17	36	48	101
Percent	16.83	35.64	47.52	

THE EDUCATION OF RESPONDENTS' PARENTS

Introduction

This section deals with the first of the two basic variables included in this study: the formal education level of respondents' parents which, throughout the study, is referred to as parental education. Details of adaptation of the pertinent questionnaire data, and a description of the variable follow.

Parental Education

This first basic variable, parental education, encompasses three aspects or elements, namely, the educational level of the father (father education), the educational level of the mother (mother education), and the combination of both of these (combined education).

Item eight of the questionnaire, dealing with the level of parental education, was composed of seven alternative

responses. The first four possible responses dealt with ranges of years of educational experience, (for example, none to three years), whereas the last three consisted of educational experience designated by types of institutions, for example, college or technical school. As a first step in the conversion of responses made in terms of these categories of data amenable to the analysis, each response category in Item eight was assigned a number in rank order, beginning with the lowest level of education and ranging to the response encompassing the highest alternative response, i.e., graduate school. The raw data were thus first categorized upon a seven-point or seven level scale (see Table 3).

Table 3

Level Categorization and Distribution of
Individual Parental Education
(N=101)

Years of Education	Level	F of Father Education	F of Mother Education
0 - 3	1	4	2
4 - 8	2	55	44
9 - 12	3	19	36
13 - 16	4	4	6
Trade or Tech.	5	12	8
College Grad.	6	4	4
Grad. School	7	3	1
Total		101	101

Distributions of Parental Education on the Seven-Point Scale

The distributions of individual parent education are shown in Table 3.

Examinations of the distributions of father and mother education in Table 3 reveals that the majority of both fathers and mothers were in Levels two and three; (74 percent of the fathers, and 80 percent of the mothers).

The most common formal education of fathers and of mothers was Level two, and the next in frequency of occurrence was Level three. It might also be worthy of note that approximately 23 percent of the fathers had education beyond grade twelve; and that 19 percent of the mothers had education beyond grade twelve.

At the other extreme, four fathers (4 percent) and two mothers (2 percent) had no formal education beyond Level one (grade three).

Distributions of Combinations of Parental Education

Distributions of combinations of parental education are illustrated in a scattergram in Figure 1. Essentially, as shown, there were forty-nine possible combinations of parental education on the seven-point scale described above. Examination of the scattergram reveals, in part, that the Levels 2 and 2 combination is by far the most frequent (approximately 32 percent); which indicated that in 32 percent of the families, both parents were below grade

eight. Also revealed, was that in only 8 percent of the families, both parents were in the post-secondary category --although 34 percent of the families had at least one parent with a post-secondary level of education.

For purposes of non-parametric analysis the seven-point scale was collapsed within both the individual parent and the combined parental education variables, as detailed in the following section.

		Level of Father Education								
		1	2	3	4	5	6	7		
Level of Mother Education	1	1		1					2	
	2	3	32	6	1	1		1	44	Frequencies of Mother Education by Levels
	3		16	8	3	6	3		36	
	4		2	2		1		1	6	
	5		3	1		4			8	
	6		1	1			1	1	4	
	7		1						1	
		4	55	19	4	12	4	3	101	
		Frequencies of Father Education by Levels								

Figure 1

Scattergram of Distribution of Levels of Education of Both Parents of Respondents

Categorization of Educational Levels of Parents for Analysis

For the purposes of non-parametric analysis, the one to seven categories were collapsed into Low, Middle and High categories for all aspects of parental education. Groupings, essentially, were made on the basis of certain "natural" divisions in the usual patterns of educational levels achieved by people. These "natural" divisions refer to the usual broad categorizations of educational level used in educational circles, and by the public. Specifically, the divisions were as follows: (a) an elementary education, (b) a high school education, or (d) some form of post-secondary training or education. Since people usually classify themselves and others in this manner, it seems reasonable to suggest that effects of parental education on the behavior of respondents might result from membership in one of the three categories (Table 4). Details, successively, of individual parent education and of combined parental education collapsed into these broad categories are given below.

Table 4

Categories of Individual Parent Education for Analysis

Category	Included Levels from 1-7 Scale	Grade Equivalents in "Natural" Division
Low	1 and 2	Elementary (Grades 1-8)
Middle	3	Secondary (Grades 9-12)
High	4 and above	All Post-Secondary

Individual parent education. For individual parent (each parent) education, groupings on the basis of divisions discussed above were called Low, Middle, and High categories of parental education (elementary, secondary, and post-secondary successively), as illustrated in Table 4. The frequencies within the above categories for father education and for mother education are shown successively in Tables 5 and 6.

Table 5

Respondents Grouped by Father Education and Degrees Held

Respondent's Degree Level	<u>Level of Father's Education</u>			Total
	Low	Middle	High	
Step one	59	18	23	100
Step two	46	13	19	78
Step three	26	10	12	48

Table 6

Respondents Grouped by Mother Education and Degrees Held

Respondent's Degree Level	<u>Level of Mother's Education</u>			Total
	Low	Middle	High	
Step one	46	36	18	100
Step two	42	23	13	78
Step three	25	17	6	48

Combined parental education. As previously discussed (supra. p. 34), one of the sub-problems of the analysis consisted of comparing combined parental education with rate of degree acquisition for possible correlations distinct from any with individual parent education. The question of grouping combined parental education into Low, Middle, and High categories presented new problems. Examination of the scattergram (supra. p. 37) reveals that strict adherence to the pattern used for individual parent education would have resulted in Middle groups with a maximum of only eight parents, or four families. This occurred because individual members in the pairs of parents differed in Level of education. Therefore, on the assumption that a better examination of trends would result from having groups somewhat more uniform in size than those which would have resulted from categorization by precisely the same method as for individual parent education (supra. p. 38), it was decided to vary from the "natural" divisions (supra. p. 38) slightly.

This was done by keeping the Low group similar to the former division, (including Levels one and two of parental education), but varying Middle and High groups. The Middle group was defined here as a condition where one parent was in Level three, the other in three or less, and the High group was defined as a condition where at least one parent was in Level four or higher (Table 7).

The resultant sizes of Low, Middle and High groups of respondents distributed by combined parental education are shown in Table 8 for each of Steps one, two, and three (see Definitions).

Table 7

Categories of Combined Parental Education

Category 1	Included Levels from 1-7 Scale	Grade Equivalents
Low	1 and 2	Elementary (Grades 1-8)
Middle	One 3, other 3 or less	At least one Secondary
High	One 4, other 4 or less	At least one Post-Secondary

Table 8

Respondents Grouped by Combined Parental Education
and Degrees Held

Respondent's Step	Level of Combined Education			Total
	Low	Middle	High	
1	36	31	33	100
2	33	20	25	78
3	26	10	12	48

THE RESPONDENTS' UNIVERSITY EDUCATION

Introduction

This section deals with the second of the two basic variables included in the study: the university education of the respondents. Specifically, the study is concerned with the rates at which respondents, relative to one another, acquired a given university degree. Relative rates were calculated for each of the three basic degree levels, the bachelor level, the master level, and the doctoral level. Details of adaptation of the pertinent questionnaire data, and a description of the variable follow.

Adaptation of the Questionnaire Data

Item eleven of the questionnaire provided the year of members' high school graduation (year zero); Item twelve provided that date of completion of each degree (year of degree acquisition); from this information, the time required by each respondent for completion of each degree held by him was calculated. These times were called his Step times (see Definitions), and were used in the calculation of rate of degree acquisition defined below.

Definition of Rate of Degree Acquisition

A respondent's rate of degree acquisition is defined as the relative time, compared to the times of other respondents, taken by him to complete a degree. For example,

the respondents with the lowest step time would have the highest rate of degree acquisition for that step; a respondent with the highest Step time would have the lowest, or slowest rate of acquisition for that step. This basic definition was used in the categorization of rate of degree acquisition for the sample detailed below.

Categorization of Rate of Degree Acquisition for Analysis

The range of Step times for each degree or Step was divided into three categories, named Fast, Medium, and Slow, according to the relative numbers of years required by sample members for completion of the given Step.

The division, as illustrated in Table 9 and summarized in Table 10 was achieved by placing the approximately one third of the step group with the lowest Step completions into the Fast group; approximately one third with the medium step times became the Medium group; and the remaining one third with the highest Step times were placed in the Slow group.

In this manner, groupings of relative rates of degree acquisition were established for non-parametric analysis at each of the three Step levels.

Reason for categorization method. This categorization method was selected on the assumption that there is no standard or normal time of degree acquisition in a field like educational administration, where members can practice

Table 9

Distribution of Time of Degree Acquisition by
Steps and Rate Divisions

STEP ONE		STEP TWO		STEP THREE		Rate Cate- gory
Years Req.	Fre- quency	Years Req.	Fre- quency	Years Req.	Fre- quency	
2	1	6	3	9	1	Fast
3	5	7	3	10	-	
4	13	8	6	11	-	
5	14	9	-	12	2	
		10	3	13	2	
6	2			14	2	
7	11	11	4	15	2	
8	8	12	4	16	6	
9	9	13	12	17	2	
10	3	14	3	18	2	
		15	8	19	2	Medium
11	8			20	4	
12	4	16	2	21	5	
13	5	17	2	22	1	
14	3	18	6	23	3	
15	3	19	3	24	-	
		20	1	25	-	Slow
16	2			26	3	
17	2	21	4	27	-	
18	1	22	4	28	3	
19	2	23	2	29	1	
20		24	1	30	1	
		25	-	31	1	
				32	1	
24	1	26	1	33	-	
25	1	27	-	34	1	
31	1	28	3	35	1	
41	1	29	1	36	1	
		30	-	37	1	
		31	1			
		32	1			

Table 10

Summary of Step Time Distributions Divided into
Rate Categories

STEP	Range in Years	Fast Rate	Medium Rate	Slow Rate	Totals	Mean Years for the Step
1	Range in years	2-5	6-10	11-41		
	Mean years for rate group	4.21	8.0	15.61		
	Frequency or sub-group size	33	33	34	100	9.27
2	Range in years	6-12	13-17	18-32		
	Mean years for rate group	9.087	14.22	22.46		
	Frequency or sub-group size	23	27	28	78	15.28
3	Range in years	9-17	18-22	24-37		
	Mean years for rate group	10.76	20.58	30.43		
	Frequency or sub-group size	17	14	17	48	20.59

their profession profitably and effectively at various training or qualification levels. Rate then seems to become a relative matter.

Resultant size of rate groups. Sizes of rate groups are shown in Table 11 below.

Since rate is a characteristic of the respondent himself, this group categorization by Steps remained constant

throughout successive analyses with father, mother, and combined parental education.

Table 11

Rate of Degree Acquisition Categories for Analysis

Step	Fast	Medium	Slow	Total
1	33	33	34	100
2	23	27	28	78
3	17	17	14	48

Sub-grouping of the Sample for Analysis

The basic plan of the study was to examine the rates at which the group of respondents, coming from backgrounds of varying parental education, had acquired selected university degrees. It was decided, toward this purpose, to divide the sample into sub-groups suitable for examination, in turn, of (1) bachelor's degree acquisition; (2) master's degree acquisition; and (3) doctoral degree acquisition.

The reader should be clear at this point, that the basic study successively re-tests relative rates of degree acquisition at three different degree levels, and does not test the relative rates of acquisition of a sum of three degrees.

Examination of the coded sample responses revealed

that complete data were available for:

- (1) the one hundred bachelor's degrees held,
- (2) the seventy-eight master's degrees held, and
- (3) the forty-eight doctoral degrees held.

The holders of the bachelor's degrees were called Step one group (see Definitions), the holders of the master's degrees were called Step two group, and the holders of the doctoral degrees were called Step three group (Table 12).

Table 12

Degrees Held by Sample Members

Groups	Numbers
Original Respondents	108
Usable Questionnaires	101
Bachelor's Degree (Step I Group)*	100*
Master's Degree (Step II Group)	78
Doctoral Degree (Step III Group)	48

*One respondent did not provide the date of acquisition for the baccalaureate and master's and was therefore included only in Step three analysis.

TREATMENT OF THE DATA

As previously mentioned under collection of data (supra. p. 30), questionnaire responses were coded by the researcher for analysis using the IBM 360/67 computer.

Since relationships could exist between father

education and the rate of degree acquisition, between mother education and rate of degree acquisition, or between combinations of parental education (combined parental education) and the rate of degree acquisition, it was necessary that each of these combinations be tested. Testing was done through the use of chi-square analysis. The level of significance accepted in all tests was .05.

Further, since the rate of degree acquisition was measured at each of the three basic degree levels considered, namely the bachelor level, the master level, and the doctoral level--or Steps one, two, and three respectively (supra. pp. 42-43)--all tests designed to identify significant differences in parental education were conducted for each of Steps one, two, and three.

Chapter 4

ANALYSIS

The purpose of this chapter is to report the results of tests conducted in the analysis of the relationship between the rate of degree acquisition and parental education. In addition, an a posteriori analysis of the relationship between parental education and the number of degrees acquired by individual respondents is reported.

ANALYSIS WITH FATHER EDUCATION

Ho:1 There is no relationship between rate of degree acquisition and father education.

Test: Chi-square, Level of significance, .05.

Chi-square tests were applied to father education categorized into Low, Middle and High groups, against the rate of degree acquisition categorized into Slow, Medium, and Fast rates at each of Steps one, two, and three. No significant differences were found at the .05 level (Table 13).

Conclusion

No evidence has been found from analysis at any of Steps one, two, or three to reject Ho: 1.

Table 13

Chi-square Analysis of Rate of Degree Acquisition
and Father Education

Step	Education Category	Rate Category			Total
		Fast	Medium	Slow	
1	Low	16	24	19	59
	Middle	5	6	7	18
	High	12	3	8	23
	Total	33	33	34	100

Chi-square = 7.35* df: 4

2	Low	14	16	16	46
	Middle	4	5	4	13
	High	5	6	8	19
	Total	23	27	28	78

Chi-square = 0.508* df: 4

3	Low	9	11	6	26
	Middle	3	2	5	10
	High	5	4	3	12
	Total	17	17	14	48

Chi-square = 3.144* df: 4

Critical chi-square ($\alpha = .05$, 4 df) is 9.49

*No significant difference.

ANALYSIS WITH MOTHER EDUCATION

Ho: 2 There is no significant relationship between the rate of degree acquisition and mother education.

Test: Chi-square; Level of significance, .05.

Chi-square tests were applied to mother education categorized into Low, Middle and High groups, against the

rate of degree acquisition categorized into Slow, Medium, and Fast rates at each of Steps one, two, and three. No significant differences were found at the .05 level, for any of Steps one, two, or three (Table 14).

Table 14

Chi-square Analysis of Rate of Degree Acquisition
and Mother Education

Step	Education Category	Rate Category			Total
		Fast	Medium	Slow	
1	Low	12	18	17	47
	Middle	14	10	11	35
	High	7	5	6	18
	Total	33	33	34	100
Chi-square = 2.395* df: 4					
2	Low	12	16	14	42
	Middle	6	7	10	23
	High	5	4	4	13
	Total	23	27	28	78
Chi-square = 1.316* df: 4					
3	Low	10	10	5	25
	Middle	5	6	6	17
	High	2	1	3	6
	Total	17	17	14	48
Chi-square = 2.905* df: 4					

Critical chi-square ($\alpha = .05$, 4 df) is 9.49

*No significant difference.

Conclusion

No evidence has been found from analysis at any of Steps one, two, or three to reject H_0 : 2.

ANALYSIS WITH COMBINED EDUCATION

Ho: 3 There is no relationship between the rate of degree acquisition and combined parental education.

Test: Chi-square; Level of significance, .05.

Chi-square tests were applied to combined education categorized into Low, Middle and High groups, against rate of degree acquisition categorized into Slow, Medium, and Fast rates at each of Steps one, two, and three. No significant differences were found at the .05 level, as illustrated in Table 15.

Conclusion

No evidence has been found from analysis at any of Steps one, two, or three to reject Ho: 3.

ANALYSIS WITH SIMILAR VS. DISSIMILAR PARENTAL EDUCATION

Similar as Opposed to Dissimilar Parental Education

Since some of the literature (Hunt, 1964) suggested that motivational effects of combined education might come from a certain dissimilarity of parental education, it was decided to apply chi-square analysis to Similar vs. Dissimilar parental education. Similar education was defined as a condition in which there was a difference of one or fewer educational category levels between parents on the seven point scale. All others were classed as dissimilar.

Table 15

Chi-square Analysis of Rate of Degree Acquisition
and Combined Parental Education

Step	Education Category	Rate Category			Total
		Fast	Medium	Slow	
1	Low	9	15	12	36
	Middle	10	12	9	31
	High	14	6	13	33
	Total	33	33	34	100
Chi-square = 5.425* df: 4					
2	Low	10	12	11	33
	Middle	5	8	7	20
	High	8	7	10	25
	Total	23	27	28	78
Chi-square = 0.892* df: 4					
3	Low	6	9	2	17
	Middle	5	4	7	16
	High	6	4	5	15
	Total	17	17	14	48
Chi-square = 5.477* df: 4					

Critical chi-square ($\alpha = .05$, 4 df) is 9.49

*No significant difference.

Ho: 4 There is no relationship between rate of degree acquisition and similar levels of parental education (both parents) as opposed to dissimilar (both parents) levels of parental education.

Test: Chi-square; Level of significance, .05.

Chi-square tests were applied with parental education categorized into similar against dissimilar

groups against rate of degree acquisition categorized into Slow, Medium, and Fast rates at each of Steps one, two, and three. No significant differences were found at the .05 level, as illustrated in Table 16.

Table 16

Chi-square Analysis of Rate of Degree Acquisition with Similar vs. Dissimilar Education and Rate

Step	Education Category	Rate Category			Total
		Fast	Medium	Slow	
1	Similar	15	16	15	46
	Dissimilar	18	17	19	54
	Total	33	33	34	100
Chi-square = .236* df: 2					
2	Similar	13	15	13	41
	Dissimilar	10	12	15	37
	Total	23	27	28	78
Chi-square = 1.04* df: 2					
3	Similar	8	9	4	21
	Dissimilar	9	8	10	27
	Total	17	17	14	48
Chi-square = 2.38* df: 2					

Critical chi-square ($\alpha=.05$, 2 df) is 5.99

*No significant difference.

Conclusion

No evidence has been found from analysis at any of Steps one, two, or three, to reject H_0 : 4.

ANALYSIS WITH RE-DEFINED STEP TIME

The basic analysis used Step time calculated, for all three pertinent degrees, as the difference in years between zero and the year of Step completion. On the possibility that rates categorized from Step times based on the difference in years between completion of successive degrees might produce different results, a separate analysis, the results of which are shown in Tables 17, 18, and 19, was conducted.

For this analysis, Step two and three times were defined as the difference in years between that Step and the previous one, rather than being measured, in all cases, from year zero. Specifically,

Step two time = Step two - Step one

Step three time = Step three - Step two

Rate of acquisition categories used in this analysis were based on the same Step time ranges used in the establishment of the rate categories for the main analysis. Rate groups (Tables 17, 18, and 19) remained roughly equivalent (30, 25, 23). No significant differences were found in analysis with any of father education, mother education, and combined education.

Conclusion

No evidence was found from analysis with father education, mother education, and combined education, and

Table 17

Chi-square Analysis of Rate of Degree Acquisition
Using Re-defined Step Time, and Father Education

Step	Education Category	Rate Category			Total
		Fast	Medium	Slow	
2	Low	19	15	12	46
	Middle	4	5	4	13
	High	7	5	7	19
	Total	30	25	23	78
Chi-square = 1.212*		df: 4			
3	Low	11	8	6	25
	Middle	4	5	8	17
	High	1	4	1	6
	Total	16	17	15	48
Chi-square = 5.942*		df: 4			

Critical chi-square ($\alpha = .05$, 4 df) is 9.49

*No significant difference.

Table 18

Chi-square Analysis of Rate of Degree Acquisition
Using Re-defined Step Time, and Mother Education

Step	Education Category	Rate Category			Total
		Fast	Medium	Slow	
2	Low	19	13	10	42
	Middle	6	10	7	23
	High	5	2	6	13
	Total	30	25	23	78
Chi-square = 5.187*		df: 4			
3	Low	8	6	3	17
	Middle	4	4	8	16
	High	4	7	4	15
	Total	16	17	15	48
Chi-square = 5.428*		df: 4			

Critical chi-square ($\alpha = .05$, 4 df) is 9.49

*No significant difference.

Table 19

Chi-square Analysis of Rate of Degree Acquisition
Using Re-defined Step Time, and Combined
Parental Education

Step	Education	Rate Category			Total
		Fast	Medium	Slow	
2	Low	15	11	7	33
	Middle	5	8	7	20
	High	10	6	9	25
	Total	30	25	23	78
Chi-square = 3.634*		df: 4			
3	Low	8	6	3	17
	Middle	4	4	8	16
	High	4	7	4	15
	Total	16	17	15	48
Chi-square = 5.43*		df: 4			

Critical chi-square ($\alpha = .05$, 4 df) is 9.49

*No significant difference.

rate of degree acquisition based on re-defined Step time, to alter any of the conclusions reached in the basic analysis.

PARENTAL EDUCATION AND NUMBER OF DEGREES ACQUIRED

The basic analysis tested for relationships between parental education and the rate of degree acquisition. The question as to whether there might be a relationship between the number of degrees acquired by a sample member and the education of his parents was examined as an a posteriori analysis, which is contained completely within this section.

In order to examine this question, chi-square analysis was performed relating parental education in the Low, Middle, and High categories previously established (supra. pp. 38, 40) to the number of pertinent degrees acquired by respondents.

As detailed below, the tests were successively performed, as in the main analysis, for each of the component sub-variables of parental education: father, mother, and combined parental education.

A null hypothesis was advanced for the analysis:

Ho: There is no relationship between parental education and the number of degrees acquired by individual respondents.

Father Education and Numbers of Degrees

Chi-square tests were applied for the comparison of father education (Low, Middle, and High categories) to the numbers of degrees acquired by respondents. No significant differences were found at the .05 level (Table 20).

Conclusion

No evidence was found from analysis with father education to reject Ho.

Mother Education and Numbers of Degrees

Tests were applied for the comparison of mother

education (Low, Middle, and High categories) to the numbers of degrees acquired by respondents. No significant differences were found at the .05 level (Table 20).

Conclusion

No evidence was found from analysis with mother education to reject H_0 .

Combined Education and Numbers of Degrees

Chi-square tests were applied for the comparison of combined education (Low, Middle, and High categories of combined parental education) to the numbers of degrees acquired by respondents. No significant differences were found at the .05 level (Table 20).

Conclusion

No evidence has been found from analysis with combined parental education to reject H_0 .

General Conclusion

Since no evidence was found from examination of any of father education, mother education or combined parental education to reject the null hypothesis, it was concluded that no relationship exists, in this sample, between parental education and the numbers of degrees acquired by individual members of this sample. (There was a significant difference at the .10 level with mother education.)

Table 20

Chi-square Analysis of Parental Education and
Number of Degrees Acquired

		Number Degrees Held			Total
		1	2	3	
Father Education	Low	12	21	26	59
	Middle	3	6	10	19
	High	2	9	12	23
	Total	17	36	48	101
Chi-square obtained: 3.50* df: 4					
Mother Education	Low	3	19	25	47
	Middle	9	9	17	35
	High	5	8	6	19
	Total	17	36	48	101
Chi-square obtained: 8.54* df: 4					
Combined Education	Low	3	16	17	36
	Middle	8	7	16	31
	High	6	13	15	34
	Total	17	36	48	101
Chi-square obtained: 5.56* df: 4					

Critical chi-square ($\alpha = .05$, 4 df) is 9.49

*No significant difference.

REVIEW OF THE FINDINGS

Hypothesis 1

No significant relationship was found between rate of degree acquisition and father education. The null hypothesis was accepted.

Hypothesis 2

No significant relationship was found between rate of degree acquisition and mother education. The null hypothesis was accepted.

Hypothesis 3

No significant relationship was found between rate of degree acquisition and combinations of parental education. The null hypothesis was accepted.

Hypothesis 4

No significant relationship was found between rate of degree acquisition and similar or dissimilar parental education. The null hypothesis was accepted.

A Posteriori Findings and Observations

No significant correlations were found between parental education and the number of degrees acquired by individual respondents.

SUMMARY

The purpose of this chapter was to determine if there were any significant differences between Rate of Degree Acquisition and Parental Education in a population of Alberta administrative personnel selected from respondents to the Thiemann Career Patterns study questionnaire. Essentially this was a population of administrators who had

been administrators in kindergarten to grade twelve, but were, in 1968, employed in post-secondary institutions.

Chi-square analysis was used to test categorized rate (Fast, Medium, and Slow) against categorized parental education (Low, Middle, High) for both individual and combined parental education. Chi-square analysis was also used to test similar against dissimilar parental education. Chi-square tests were applied to re-defined step time, where times for Steps two and three were calculated as the difference in years between steps, rather than being measured from year zero.

No significant relationships were found between the variables being tested.

With regard to research Hypothesis One, dealing with the relationship of rate of degree acquisition to father education; the null hypothesis was accepted.

Research Hypothesis Two dealt with relationship between rate of degree acquisition and mother education; the null hypothesis was accepted.

Research Hypothesis Three examined the relationships between rate of degree acquisition and combined education; the null hypothesis was accepted.

Research Hypothesis Four dealt with relationships between rate of degree acquisition and similar combined parental education as opposed to dissimilar combined parental education. Again, the null hypothesis was accepted.

An a posteriori analysis was conducted, also using chi-square tests, to discover significant differences in parental education with the number of degrees acquired by individual respondents. No significant differences were found, so it was concluded that no relationship exists, in this sample, between parental education and the number of degrees held by individual respondents.

It was concluded, therefore, that based on the evidence found in both analyses, no relationship exists in this sample between the education of respondents' parents and degree acquisition by respondents-- either in rate of acquisition of specific degrees, or in numbers of degrees acquired by individuals.

Chapter 5

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

This chapter is a review of the study. It includes a statement of the problem investigated, a brief description of the instrumentation and methodology, and the sample.

The chapter also reports major findings and their possible implications.

SUMMARY OF THE STUDY

The Problem

The purpose of this study was to determine whether or not there were significant relationships between parental education and the rate of degree acquisition of a selected population of Alberta administrators (in post-secondary or some other positions). It investigated individual parental educational levels as well as combinations of combined parental education.

Analysis of the Problem

Analysis of the problem began with a review of the literature in four areas: parental influence on behavior generally; parental influence on career aspiration and occupational choice; the influence of parental education on grade achievement; the influence of parental education level on career aspiration and occupational choice.

Literature on parental education as an achievement motivator was reviewed on the assumption of the existence of a relationship between achievement and rate of degree acquisition. Literature on parental education as a career motivator was also felt to have a close relationship on the assumption that degree acquisition marks steps in career fulfillment. In this last respect, the present study was felt to provide an example of a study which looked at academic achievement and career aspirations in retrospect, whereas most studies of this type look at achievement of young people while they are still under the influence of parents and teachers, and at careers while they are still much in the aspirational stage.

The basic research hypothesis postulated that there would be a relationship between rate of degree acquisition and some aspects of parental education: father's education, mother's education, combined parental education, or perhaps similar as opposed to dissimilar combined parental education..

In addition to the basic problem investigated, as discussed above, an a posteriori analysis was conducted to examine the relationship between parental education and the number of degrees acquired by individual respondents. This was done as a separate unit, with a null hypothesis drawn up separately from the basic research hypothesis.

The data used were taken from part of the data collected by questionnaire in 1968 for the Thiemann Career Pattern Study of Alberta Administrative Personnel. The selected data were coded by the researcher and transferred to IBM cards. Chi-square analysis was used to investigate grouped data, both for individual parental education and for combined education.

The sample for this study consisted of a population of administrators who had been in kindergarten to grade twelve in Alberta, and who were in 1968 employed in some post-secondary aspect of Alberta's education, or in a professional or elected government post.

Of the 108 respondents who were included in the above category, seven were excluded from the sample because they had omitted essential information in completing the questionnaire, such as parental education or dates essential to calculation of rate, or they (two members) held no degree.

An examination of distributions of parental education showed that only four fathers, 4 percent, were in the lowest or "zero to three years of education" category, and only two, or 2 percent of mothers were in the same category. The figures at the other extreme, (Level seven or graduate school level) were almost identical, with three fathers and one mother being in that category. The most common Level of parental education was Level two, grades four to eight

(55 percent of the fathers, and 44 percent of the mothers).

CONCLUSIONS

The conclusions presented here were arrived at on the basis of evidence gathered through analysis of the data contained in the usable Thiemann Career Pattern Questionnaires. The evidence seems to suggest that the following are defensible with regard to the relationship between the rate of degree acquisition and parental education.

1. There were no significant differences found in comparisons between father education, mother education, combinations of parental education, or similar vs. dissimilar categorizations of parental education and rate of degree acquisition in the selected sample of educational administrators.

2. As revealed by the a posteriori analysis, there were no significant differences in parental education and the numbers of degrees acquired by respondents.

It was concluded that the rate of degree acquisition, as defined in this study, does not seem to be related to parental education nor is the number of degrees acquired by individual members related to parental education for this sample.

IMPLICATIONS

The findings of this study seem to suggest the following implications:

1. The main implication of the study could be that the strongest motivation for degree acquisition comes from influences, conditions, or paternal characteristics distinct from parental education. The study does not disprove the existence of a relationship between parental education and career achievement in the general population. It seems possible that a group such as the respondents studied here shared some common strong motivation to achieve as they did. Perhaps the only implication that is safe to make from this study, is that degree acquisition ranging to the highest degree available, as well as relative career success in the field of administration, are possible without the assistance of high parental education.

2. The finding that there were no correlations between parental education and rate of degree acquisition for these respondents, nor between parental education and the number of degrees acquired, could be a comforting one to parents with lower levels of education, who may feel that their children may be hampered in their opportunity to acquire educational administrative positions of some distinction, or even higher education in general, by their own (the parents') limited formal education.

3. As stated in the introductory chapter, such a finding could be of use to Indian parents, who have a relatively low average level of formal education, in the consideration of educational problems or advancement for their children.

RECOMMENDATIONS FOR FURTHER STUDY

Although the study is not generalizable, even to all Alberta administrators, it could be replicated with a population or sample of administrators in a uniquely different level of educational administration, such as elementary, junior high or senior high, or with administrators in either rural or city system, to see if the nature of the relationship between the variables studied here is characteristic only of a single group of administrators.

Another related study might be the application of similar tests to holders of degrees in other disciplines, to see if findings and characteristics would be similar to those found here for this particular group of administrative personnel.

A third possibility might be the examination of other potential motivational factors as possible determinants or predictors of rate of degree acquisition, or of numbers of degrees acquired.

REFERENCES

REFERENCES

- Ausubel, D. P. "Relationships Between Shame and Guilt in the Socializing Process," in Current Research in Motivation, (ed.) Haber, R. N. Holt, Rinehart & Winston Inc., New York, 1966, p. 608.
- Beach, F. A. "The Descent of Instinct," Psychological Review, 1955, Vol. 62, p. 410.
- Bendix, R. and S. M. Lipset. Class Status and Power: A Reader in Social Stratification. Free Press of Glencoe, 1963.
- Bordua, David T. "Education Aspirations and Parental Stress on College," Social Forces, March 1960, pp. 262-269.
- Burton, W. H. "Educational and Social Class in the United States," Harvard Educational Review, XXIII, 1953.
- Byrne, T. C. Statement in a letter to Dr. Thiemann included in Appendix, 1968.
- Card, B. Y., Dockrell, Knill and Regan. School Achievement in Rural Alberta. A Report on Project 614 of The Alberta Advisory Committee on Educational Research, University of Alberta, 1966.
- Child, I. L., T. Storm and J. Veroff. "Achievement Themes in Folk Tales Related to Socialization Practice," in J. W. Atkinson (ed.), Motives in Fantasy, Action and Socialization Practice. Princeton: Van Nostrand, 1958.
- Coates, Charles H. and Roland J. Pellegrin. "Executives and Supervisors: A Situational Theory of Differential Occupational Mobility," Social Forces, 1957. 35, 2, Dec., pp. 121-126.
- Coleman, James S. The Adolescent Society. New York: The Free Press, 1961.
- Davie, James S. "Social Class Factors and School Attendance," Harvard Educational Review, XXIII (Summer, 1953), pp. 175-185.
- Dunkleberger, John E. "Intensity of Job Mobility Aspirations Among Household Heads in Low Income Areas of the Rural South." Ph. D. Dissertation, State College of Mississippi, Mississippi State University, Department of Sociology and Anthropology, 1965.

- Empey, Lamar T. "Social Class and Occupational Aspirations: A Comparison of Absolute and Relative Measurement," American Sociological Review, XXI (December 1956), pp. 703-709.
- Haber, R. N. (ed.). Current Research on Motivation. Holt, Rinehart and Winston Inc., New York, 1966.
- Hess, E. H. "Imprinting," Science, July 17, 1959, Vol. 130, pp. 131-144.
- Hughes, Rufus B. "Low Incomes in Southern Agriculture Populations." Unpublished Doctoral Dissertation, University of Chicago, 1959.
- Hunt, Shane J. "Income Determinants for College Graduates and the Return to Educational Investment." Yale University Economic Growth Center, Box 1987, Yale Station, New Haven, Connecticut, 1964.
- Kahl, Joseph A. The American Class Structure. New York, Rinehart, and Company, 1962.
- Lipset, Seymour M. and Reinhardt Bendix. Social Mobility in Industrial Society. Berkeley, University of California Press, 1959.
- McGillivray, R. H. "Differences in Home Background Between High-Achieving and Low-Achieving Gifted Children." Doctor of Education Thesis, Toronto, 1963. (Microfilm, University of Alberta).
- McClelland, D. C. "The Psychology of Mental Content Reconsidered," in Current Research in Motivation, (ed.) Haber, R. N. Holt, Rinehart & Winston Inc., 1966, p. 644.
- Murphy, Thomas Redmond. "A Descriptive Survey of the Career Patterns of Principals Within the Edmonton Separate School System." Unpublished Master's Thesis, University of Alberta, 1969.
- Rehberg, Richard A. "Selective Determinants of Adolescent Educational Expectations." C.A.S.E.A. University of Oregon, February, 1966.
- Robinson, P. "The Measurement of Achievement Motivation." Unpublished Doctoral Dissertation, Oxford University, 1961.

- Rosen, B. C., and R. D'Andrade. "The Psychosocial Origins of Achievement Motivation," Sociometry, 1959, 22:185-218.
- Seaman, Bernard E. "A Study of Academic Underachievement Among Education Students at the University of Alberta." Unpublished Master's Thesis, University of Alberta, 1960.
- Sears, P. S. "Levels of Aspiration in Academically Successful and Unsuccessful Children," Journal of Abnormal Psychology, 1940, 35:498-536.
- Sewell, W. H. and Vimal P. Shah. "Social Class, Parental Encouragement and Educational Aspirations," The American Journal of Sociology, LXXIII (March 1968), pp. 559-572.
- Sherif, M. and Carolyn W. Sherif (eds.). Problems of Youth. Chicago: Aldane Publishing Company, 1965.
- Simpson, Richard L. "Parental Influence, Anticipatory Socialization, and Social Mobility," American Sociological Review, August, 1962, pp. 517-562.
- Slocum, Walter L. Occupational Careers. Aldane Publishing Company, Chicago, 1966.
- Strong, G. K. Lectures in Sociology, University of Alberta, 1959.
- Thiemann, F. C. Career Pattern Questionnaire, form 1a EA, Edmonton, Department of Educational Administration, The University of Alberta, 1968.
- Turner, Ralph H. The Social Context of Ambition. San Francisco: Chandler, 1964, pp. 76, 77.
- Warner, L. W., and James C. Abbeglen. Big Business Leaders in America. New York: Harper and Bros., 1955.
- Weleschuk, Marion A. "Career Patterns of Alberta School Superintendents." Unpublished Master's Thesis, University of Alberta, 1969.
- Werts, Charles E. "Paternal Influence on Career Choice." National Merit Scholarship Corp., Evanston, Illinois. (Microfiche, University of Alberta), 1967.

A P P E N D I X A

LETTERS TO RESPONDENTS



Edmonton, Alberta
December 5th, 1968

To Whom It May Concern:

I have undertaken to complete Professor F.C. Thiemann's questionnaire which he proposes to use in a Career Pattern Study of Educational Administrators in Alberta. The information which Professor Thiemann will gather through this instrument should provide him with data to arrive at certain insights on the selection and promotion of administrators in this province. Anything that adds to our understanding of the process of recruitment and selection of top executives in the field of education should prove useful to all organizations involved in preparing and employing administrators.

I would encourage you to give Professor Thiemann any assistance that you can in the completion of this study.

January 27, 1969

To Whom It May Concern:

One of the professional responsibilities that school administrators have assumed over the years has been to assist researchers in the advancement of knowledge of their profession. You have continued to contribute time, energy, and knowledge even when at times questioning the duplication of effort and the not too clear purpose of the studies.

The attached questionnaire, however, represents a break from that experience in that this instrument will provide, as a data bank, a number of students and researchers with the baseline data so often requested. While the instrument is primarily designed to be used by students of career patterns, that is, to study the historical growth and development of educational administration in Alberta, it also requests information needed to test a number of hypotheses dealing with complex organizations, succession, and careers.

Some of the findings of this study will be of interest to the Province as in forecasting personnel needs -- a vital factor in the study of human resources. Other findings, it is anticipated, will hold some interest to the Department in that both a historical and a predictive study can provide us and those who follow with a picture of our organizational history and a stochastic view of the future. To the individual administrator, in the Field, the study can be of use in evaluating and assessing the outcomes of different career alternatives.

This entire project has been discussed with Dr. T.C. Byrne, Deputy Minister, Dr. R.E. Rees, Chief Superintendent of Schools, and Dr. H.T. Coutts, Dean of the Faculty of Education who have encouraged us to anticipate your continued demonstration of professional responsibility and cooperation in this effort. Your superintendent has already completed his questionnaire and has been kind enough to give us your name as an administrator in this system.

Thank you for your cooperation.

Sincerely yours

A P P E N D I X B

QUESTIONNAIRE ITEMS USED IN THE STUDY

Table 21

Questionnaire Items Used in the Study

Item Number	Information Provided	Use
2	Institutions of employment of respondents	Description of the sample
3	Sex of respondents	Description of the sample
8	Educational level of respondents' parents	Basic analysis
11	Respondents' year of high school graduation	Basic analysis
12	Respondents' univer- sity and years of their completion	Basic analysis

A P P E N D I X C

QUESTIONNAIRE

I. Background Data

1. Your name _____
2. The name of your school _____
and/or _____
school district _____
or _____
employing agency _____
3. Sex: () Male () Female
4. Age: () 29 and below () 50 - 59
() 30 - 39 () 60 - 69
() 40 - 49 () 70 and above
5. Marital Status:
() Single () Separated
() Married () Divorced
6. Your salary in this position this year before taxes is:
() \$5,999 and below () \$15,000 to \$19,999
() \$6,000 to \$9,999 () \$20,000 to \$24,999
() \$10,000 to \$14,999 () \$25,000 and above
7. The number of persons who depend on you for support including your spouse. ()
8. Indicate by checking the highest grade attained, the education of:
- | | | |
|-------------|-------------|-------------------------------|
| | () 0 - 3 | () trade or technical school |
| Your father | () 4 - 8 | () college graduate |
| | () 9 - 12 | () graduate school |
| | () 13 - 16 | |
| | () 0 - 3 | () trade or technical school |
| Your mother | () 4 - 8 | () college graduate |
| | () 9 - 12 | () graduate school |
| | () 13 - 16 | |
9. What was your father's occupation at the time you graduated from high school _____
during most of his life? _____

10. If no form of agriculture was listed in question 9, proceed to question 11. If agriculture was listed, please fill in the following:

- a. Number of acres owned _____; leased _____
- b. Number of full time workers _____
- c. Number of seasonal workers _____
- d. Major crop or stock _____
- e. Approximate annual income _____

11. What year did you finish high school? _____

12. Please list the normal schools, colleges, and universities you have attended in order.

<u>Name</u>	<u>Dates</u>	<u>Major</u>	<u>Minor</u>	<u>Degrees</u>
_____	-	_____	_____	_____
_____	-	_____	_____	_____
_____	-	_____	_____	_____
_____	-	_____	_____	_____
_____	-	_____	_____	_____
_____	-	_____	_____	_____
_____	-	_____	_____	_____
_____	-	_____	_____	_____
_____	-	_____	_____	_____

13. Please list in order all work experience you have held for 6 months or longer after leaving HIGH SCHOOL but before receiving your BACCALAUREATE degree

	<u>Position</u>	<u>Organization</u>	<u>Dates</u>
_____ a.	_____	_____	-
_____ b.	_____	_____	-
_____ c.	_____	_____	-
_____ d.	_____	_____	-
_____ e.	_____	_____	-
_____ f.	_____	_____	-

g.			-
h.			-
i.			-
j.			-

If in the above any of the positions were administrative, place an "X" before the appropriate number. In the spaces below please write the names of your PREDECESSOR and your SUCCESSOR to those administrative positions marked with the "X" in the same order as they appear above.

<u>PREDECESSOR'S Name</u>		<u>SUCCESSOR'S Name</u>	
a.		a.	
b.		b.	
c.		c.	
d.		d.	
e.		e.	
f.		f.	
g.		g.	
h.		h.	
i.		i.	
j.		j.	

In the blanks in front of each name of both PREDECESSOR and SUCCESSOR would you please place one of the four letters listed below which best represents the situation at the time.

- A { If your predecessor was solely responsible for your selection as his successor, or if you were solely responsible for the selection of your successor.
- B { If your predecessor was primarily responsible for your selection as his successor, or if you were primarily responsible for the selection of your successor.
- C { If your predecessor was influential in your selection as his successor, or if you were influential in selecting your successor.
- D { If your predecessor had no voice in your selection as his successor, or if you had no voice in selecting your successor.

14. Please list in order all the positions you have held after receiving your BACCALAUREATE degree but before receiving the MASTER degree.

	<u>Position</u>	<u>Organization</u>	<u>Dates</u>
_____ a.	_____	_____	_____ - _____
_____ b.	_____	_____	_____ - _____
_____ c.	_____	_____	_____ - _____
_____ d.	_____	_____	_____ - _____
_____ e.	_____	_____	_____ - _____
_____ f.	_____	_____	_____ - _____
_____ g.	_____	_____	_____ - _____
_____ h.	_____	_____	_____ - _____
_____ i.	_____	_____	_____ - _____
_____ j.	_____	_____	_____ - _____

If in the above any of the positions were administrative, place an "X" before the appropriate number. In the spaces below please write the names of your PREDECESSOR and your SUCCESSOR to those administrative positions marked with the "X" in the same order as they appear above.

	<u>PREDECESSOR'S Name</u>		<u>SUCCESSOR'S Name</u>
_____ a.	_____	_____ a.	_____
_____ b.	_____	_____ b.	_____
_____ c.	_____	_____ c.	_____
_____ d.	_____	_____ d.	_____
_____ e.	_____	_____ e.	_____
_____ f.	_____	_____ f.	_____
_____ g.	_____	_____ g.	_____
_____ h.	_____	_____ h.	_____
_____ i.	_____	_____ i.	_____
_____ j.	_____	_____ j.	_____

In the blanks in front of each name of both PREDECESSOR and SUCCESSOR would you please place one of the four letters listed below which best represents the situation at the time.

- A { If your predecessor was solely responsible for your selection as his successor, or if you were solely responsible for the selection of your successor.
- B { If your predecessor was primarily responsible for your selection as his successor, or if you were primarily responsible for the selection of your successor.
- C { If your predecessor was influential in your selection as his successor, or if you were influential in selecting your successor.
- D { If your predecessor had no voice in your selection as his successor, or if you had no voice in selecting your successor.

15. Please list in order all the positions you have held after receiving your MASTER degree but before receiving the DOCTORATE.

	<u>Position</u>	<u>Organization</u>	<u>Dates</u>
_____ a.	_____	_____	_____ - _____
_____ b.	_____	_____	_____ - _____
_____ c.	_____	_____	_____ - _____
_____ d.	_____	_____	_____ - _____
_____ e.	_____	_____	_____ - _____
_____ f.	_____	_____	_____ - _____
_____ g.	_____	_____	_____ - _____
_____ h.	_____	_____	_____ - _____
_____ i.	_____	_____	_____ - _____
_____ j.	_____	_____	_____ - _____

If in the above any of the positions were administrative, place an "X" before the appropriate number. In the spaces below please write the names of your PREDECESSOR and your SUCCESSOR to those administrative positions marked with the "X" in the same order as they appear above.

	<u>PREDECESSOR'S Name</u>	<u>SUCCESSOR'S Name</u>
_____ a.	_____	_____ a. _____
_____ b.	_____	_____ b. _____

_____ c. _____	_____ c. _____
_____ d. _____	_____ d. _____
_____ e. _____	_____ e. _____
_____ f. _____	_____ f. _____
_____ g. _____	_____ g. _____
_____ h. _____	_____ h. _____
_____ i. _____	_____ i. _____
_____ j. _____	_____ j. _____

In the blanks in front of each name of both PREDECESSOR and SUCCESSOR would you please place one of the four letters listed below which best represents the situation at the time.

- A { If your predecessor was solely responsible for your selection as his successor, or if you were solely responsible for the selection of your successor.
- B { If your predecessor was primarily responsible for your selection as his successor, or if you were primarily responsible for the selection of your successor.
- C { If your predecessor was influential in your selection as his successor, or if you were influential in selecting your successor.
- D { If your predecessor had no voice in your selection as his successor, or if you had no voice in selecting your successor.

16. Please list in order all the positions you have held after receiving your DOCTORATE.

	<u>Position</u>	<u>Organization</u>	<u>Dates</u>
_____ a.	_____	_____	_____ - _____
_____ b.	_____	_____	_____ - _____
_____ c.	_____	_____	_____ - _____
_____ d.	_____	_____	_____ - _____
_____ e.	_____	_____	_____ - _____
_____ f.	_____	_____	_____ - _____
_____ g.	_____	_____	_____ - _____

h.	_____	_____	_____
i.	_____	_____	_____
j.	_____	_____	_____

If in the above any of the positions were administrative, place an "X" before the appropriate number. In the spaces below please write the names of your PREDECESSOR and your SUCCESSOR to those administrative positions marked with the "X" in the same order as they appear above.

<u>PREDECESSOR'S Name</u>		<u>SUCCESSOR'S Name</u>	
a.	_____	a.	_____
b.	_____	b.	_____
c.	_____	c.	_____
d.	_____	d.	_____
e.	_____	e.	_____
f.	_____	f.	_____
g.	_____	g.	_____
h.	_____	h.	_____
i.	_____	i.	_____
j.	_____	j.	_____

In the blanks in front of each name of both PREDECESSOR and SUCCESSOR would you please place one of the four letters listed below which best represents the situation at the time.

- A { If your predecessor was solely responsible for your selection as his successor, or if you were solely responsible for the selection of your successor.
- B { If your predecessor was primarily responsible for your selection as his successor, or if you were primarily responsible for the selection of your successor.
- C { If your predecessor was influential in your selection as his successor, or if you were influential in selecting your successor.
- D { If your predecessor had no voice in your selection as his successor, or if you had no voice in selecting your successor.

A P P E N D I X D

DISTRIBUTION OF ADMINISTRATORS BY YEAR OF HIGH
SCHOOL GRADUATION OR YEAR ZERO

Table 22

Distribution of Administrators by Year of High School Graduation or Year Zero

(N = 101)

Year	1915	1920	1925	1930	1935	1940	1945	1950	1955	1960
0	1919	1924	1929	1934	1939	1944	1949	1954	1959	1965
Frequency	2	4	5	14	15	18	24	15	3	1
Approximate* Age	70	65	60	55	50	45	40	35	30	25

Mean of Approximate Ages: 45.85

*These approximations, included for reader interest only, were calculated by using age 18 as the age on high school graduation, in conjunction with year zero to arrive at the age approximation.

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